interrupt

#3 2010 NEWSLETTER FROM DATA RESPONS

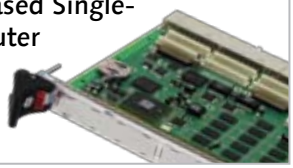
Multidisciplinary teams speed up development PAGE 3

Plug & test

"Our experience with LabVIEW and TestStand for development and testing purposes is extremely good. The tools help us deliver better projects," says Viviana Jeaneth Reimundo, development engineer in Data Respons Norway. PAGE 6

Green Power from Lundinova
04

Rugged i7-based Single-Board Computer
09



Railway-certified panel PC
10

we know embedded solutions

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Embedded News
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datarespons.com/e-news

EVENTS

Presentation Q3 2010
15 October 2010
Hotel Continental, Oslo
www.datarespons.com/webcast

DESIGN&ELEKTRONIK
19–20 October 2010
Ludwigsburg
www.embedded-entwicklerforum.de

Electronica 2010
9–12 November 2010
New Munich Trade Fair
www.electronica.com

MEDICA 2010
17–20 November 2010
Düsseldorf
www.medica-tradefair.com

Presentation Q4 2010
26 January 2011
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www.datarespons.com/webcast

FPGAworld 2011
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ABOUT DATA RESPONS

Data Respons is a knowledge-based technology company and a leading European player in the embedded solutions market. Embedded solutions, or integrated solutions, can be described as the computer brain of a machine, a system or an industrial end product. The Data Respons Group is listed on the Oslo Stock Exchange (Ticker: DAT), with headquarters in Oslo, Norway. The company has operations in Denmark, Finland, Germany, Norway, Sweden and Taiwan.

SHANGHAI: *Data Respons is opening a new office in one of Shanghai's most thriving industrial areas.*

FURTHER EXPANSION IN ASIA

Data Respons is expanding further in Asia by opening its second Chinese office in one of Shanghai's most thriving industrial areas. Data Respons has been represented in China through its office in Taiwan since 2007.

"Being close to both local innovation and global production is important to us because our business model encompasses the entire value chain. Innovation and development of technological solutions takes place locally with the customer, and explains our presence in important industrial regions. At the same time development, industrialisation and delivery are being effected at an ever-increasing tempo, which also demands our presence in the places where the solutions are produced. Our new office in Shanghai will enable us to help many of our customers to leverage new opportunities," explains Data Respons ASA's CEO, Kenneth Ragnvaldsen.

DATA RESPONS TAIWAN

Data Respons' Taiwan (Taipei) office was opened in 2007. The office's main activities comprise logistics, project management, quality assurance and sourcing. The office's staff play an important role in cooperation with the company's gold partners in Taiwan by reducing development time for OEM and ODM projects, sourcing more new products categories and securing high quality.

REOPENING IN BERGEN

Data Respons' office in Bergen has moved to a new location, Edvard Griegs vei 3A at Danmarksplass.

"We are very happy with the number of visitors to our official opening on 23 September. The guests could see a wide range of exciting presentations from customers, the R&D community in Bergen and from Data Respons," says department manager Harald Kjøde.

NEW ADDRESS: *Data Respons Norge AS, Edvard Griegs vei 3A, NO-5059 Bergen.*

OFFICIAL OPENING IN ÅRHUS

Representatives from the electronics industry and the press, as well as the Mayor of Århus, attended the official opening of Data Respons' new office in Århus in Denmark. The theme was Innovation, and the event was presented by three influential personalities from the hi-tech industry and our own sales director, Michael Schou Rasmussen.

MULTIDISCIPLINARY: *Data Respons' engineers specialise in either HW, SW or firmware/FPGA. They work in teams, and potential challenges are quickly identified and solved.*

MULTIDISCIPLINARY TEAMS SPEED UP DEVELOPMENT

Data Respons' developers work in multidisciplinary teams to quickly identify and solve potential challenges.

Data Respons' hardware engineers have experience and expertise in a wide range of disciplines ranging from design, PCB layout, prototyping and environmental testing.

Our hardware engineers boast an impressive track record, and participate in development projects in a wide range of industries including offshore, maritime, medical, telecommunication, transportation and defence. Our customers' solutions are often subject to strict government requirements and our test facilities and test engineers perform pre-certification tests to ensure a smooth certification process with the classification authorities. The knowledge these test procedures generate serves as an important guideline for our engineers in later development projects.

MULTIDISCIPLINARY DEVELOPMENT

Data Respons' engineers specialise in either HW, SW or firmware/FPGA. They work in teams, and project management is rotated. This creates a unique learning environment, in which potential challenges are quickly identified and solved.

Complicated and larger projects can be run using the Agile methodology SCRUM , which has been adjusted to fit Data Respons' own development methods. The development teams work in a non-bureaucratic fashion in close co-operation with customers, resulting in shorter development times.

The development teams work in a non-bureaucratic fashion in close co-operation with customers, resulting in shorter development times.

FOR MORE INFORMATION:
www.datarespons.com/880

OUR EXPERTISE

- Analogue design
- Digital design and components
- PCB design
- EMI/EMC shielding design
- Low-noise and low-power design
- High-speed design
- RF
- Digital signal processing design
- High-temperature design (>150–200 °C)

GREEN POWER: *The technology is scaleable for different voltages and power levels, and can be combined with dimmers in lighting applications.*

GREEN POWER FROM LUNDINOVA

The Data Respons company Lundinova has developed technology for a lossless electricity supply that reduces standby consumption by 99 per cent.

A growing number of appliances, for example lighting applications, computer accessories, mobile-phone chargers, etc., use some sort of power adapter to convert the mains voltage to the required voltage. It is above all in standby mode that appliances consume unnecessary power. Power adapters heat up simply by being plugged in.

LOW ADDITIONAL COSTS

Lundinova's technology reduces standby consumption by around 99 per cent. The extra cost of manufacturing an item such as a mobile-phone charger using this technology is only around USD 1. The technology is scaleable for different voltages and power levels, and can be combined with dimmers in lighting applications.

EXAMPLE OF ENERGY SAVINGS

Assuming that a charger is left on standby for around 20 hours a day, using one of our chargers would save 5.9 Wh per day, which is 2.1535 kWh per year. Based on an estimate of 10 million chargers in Sweden, that equates to a saving of 20 GWh per year for the country as a whole.

MAIN FEATURES

- AC/DC power adapter with extremely low standby power consumption: 99% less than typical
- Smart solution to automatically detect if load is present or not. No manual on/off switch needed
- Unaffected efficiency in active mode
- Cost of added components about USD 1
- Possible to implement as an ASIC
- Generic for different output voltages and power levels
- Dimmable if used for lamps

FOR MORE INFORMATION:
www.datarespons.com/881

LASER MEASURES STATE OF HEALTH

The Data Respons company Lundinova has helped develop a device which calculates the amount of abdominal fat.

The solution has been developed in conjunction with inventor Dr Carl-Erik Flodmark, a consultant at University Hospital, Malmö, in Sweden, and the development company Innovator Skåne AS.

Abdominal height (sagittal diameter or SAD) provides a better indication of the amount of dangerous abdominal fat, and supplements the more common waist measurement using a tape measure to calculate the level of obesity. The device measures the height of the abdomen compared with the height of the sternum to calculate the risk of abdominal obesity by means of an "F-index". Measurement can be performed without touching the patient, which according to Dr Flodmark is important when examining children and adolescents.

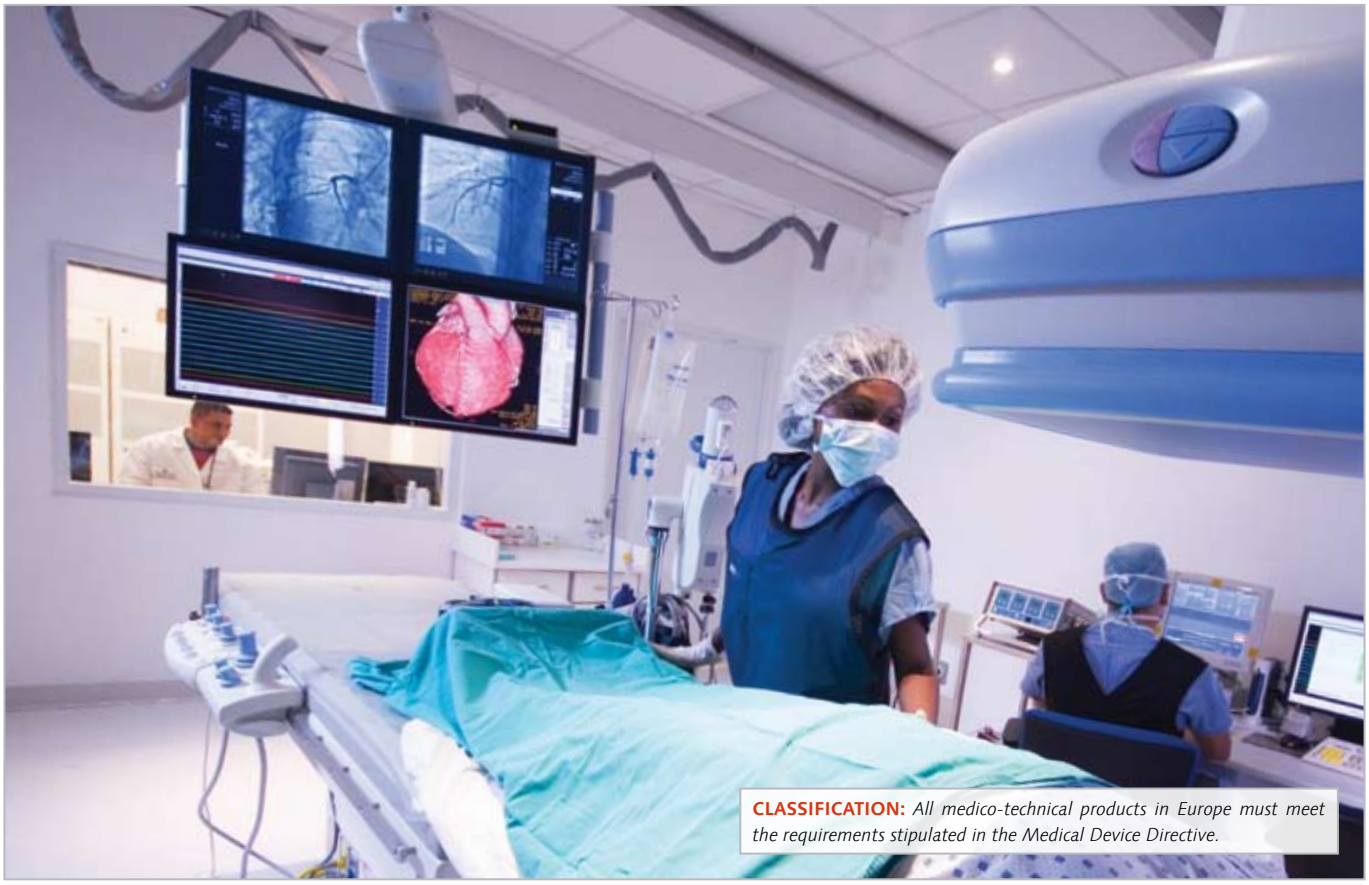
"There has never been a good method for measuring abdominal height; we have had to rely on a spirit level and tape measure. I thought there had to be a better way," said Dr Flodmark to the Swedish medical newspaper *Dagens Medicin*.

F-INDEX

The invention is called the "abdominal height laser", and a prototype has been tested at University Hospital, Malmö. Dr Flodmark and his team at the hospital have defined the F-index, which is built on the hypothesis that the height of the abdomen should not exceed the height of the sternum. The laser measures the height of both the abdomen and sternum, and the ratio between them defines the F-index. If the ratio is greater than 1, ie the height of the abdomen exceeds the height of the sternum, the patient may be suffering from dangerous abdominal obesity. The F-index could prove to be a better method for calculating the degree of obesity than BMI, for example, which does not take into account such factors as whether the person is heavily built or is experiencing a growth spurt.

"Lundinova has developed hardware, software and the mechanics for this project. The system's main components are a data collection device, a USB camera, a line laser, level indicator, manoeuvring buttons and indicator lamps," says Lundinova's Anders Alvin.

FOR MORE INFORMATION:
www.datarespons.com/882



CLASSIFICATION: *All medico-technical products in Europe must meet the requirements stipulated in the Medical Device Directive.*

MEDICAL DEVICE DIRECTIVE

Data Respons has helped guide a large number of medico-technical companies safely through both CE labelling in Europe and FDA registration in the USA.

Data Respons has many years' well-documented experience of developing and manufacturing medico-technical devices.

What is the difference between CE labelling and FDA registration?
"In principle there is not much difference. This is where classification comes in, which is almost identical in Europe and the USA. The FDA uses the term 'Good Manufacturing Practices 21CFR Part 820', while in Europe we use 'Medical Device Directive 93/42 EEC with amendment 2007/47/EC'," explains QA Manager Thomas Dam from Data Respons in Denmark.

When a product is to be imported into the USA the manufacturer sends a Premarket Notification 510 (K), a document containing several hundred pages which largely corresponds to the requirements for CE labelling. The difference is that the manufacturer has to gather together the documentation and send it to the FDA. There follows a lengthy dialogue back and forth until the manufacturer receives a K-number.

"It is enormously time consuming from a purely administrative point of view. In Europe, companies whose quality-assurance system is ISO 13485 certified are themselves permitted to put a CE label on their products," concludes Thomas Dam.

MEDICO-TECHNICAL EXPERT: *Thomas Dam, QA Manager, Data Respons Denmark.*

FOR MORE INFORMATION:
www.datarespons.com/883

CLASSIFICATION IN EUROPE

Classification determines which requirements and regulations must be fulfilled before a product can be awarded a CE label.

CLASS 1: Products such as walking frames, wheelchairs, stethoscopes, which do not require a notified body. As a rule, manufacturers themselves are entitled to draw up and sign a conformance declaration, with subsequent auditing by the government's controlling body (in Denmark the Danish Medicines Agency).

CLASS 2A AND 2B: Most electro-medical products, e.g. ECG equipment and equipment used for the diagnosis, prevention, monitoring, treatment or relief of medical conditions.

CLASS 3: High-risk products, e.g. those requiring examination, replacement or change of the anatomy or a physiological process, as well as devices associated with an element of risk, eg implants such as pacemakers. All medico-technical products in Europe must meet the requirements stipulated in the Medical Device Directive 93/42 EEC with amendment 2007/47EC.

NOTIFIED BODY

A notified body is a body authorised by the Danish national control authority to audit the companies. The national control authority audits both companies marketing Class 1 products and notified bodies. Notified bodies audit companies marketing Class 2 and 3 products. If the manufacturer has an ISO 13485 certified quality-assurance system it is itself entitled to put a CE label on products of any classification. A notified body audits the company once a year, with the exception of those companies which sell only Class 1 products. Alternatively, manufacturers which do not have a certified quality-assurance system may obtain a CE label if a notified body audits each individual production run and its associated documentation. Efforts are being made to establish ISO 13485 as a common standard in the USA and Europe.

PLUG AND TEST

"Our experience with LabVIEW and TestStand for development and testing purposes is extremely good. The tools help us deliver better projects," says Viviana Jeaneth Reimundo, a development engineer with Data Respons Norge.

Data Respons has been using LabVIEW for some time in a variety of areas, such as systems testing, applications development and data analysis. LabVIEW offers a great many benefits, the most important of which are significant efficiency improvements, a high level of precision, simple reporting and analysis functions, user friendliness and extensive usage.

LABVIEW AND TESTSTAND

Data Respons has noticed that demand for services in LabVIEW is increasing, particularly with regard to testing embedded solutions. Viviana Jeaneth Reimundo is a test development specialist, and uses the TestStand test management software to develop and perform tests on embedded solutions.

"TestStand is a tool for systematising, validating and performing tests. We have developed LabVIEW modules to test individual features such as USB, power, video, etc. TestStand brings these modules together to build a complete test that is tailored to meet the customer's requirements," she explains.

"We have developed a wide-ranging test procedure for embedded solutions using TestStand. The graphic interface means it is intuitive to set up. When the product is tested and delivered in volume it will result in major time savings and high-quality product testing. We perform environment tests, function tests and production tests using TestStand. The production test includes a physical test, a function test and a stress test using a variety of different parameters. The results can be analysed and presented in a

TEST EXPERT: *Viviana Jeaneth Reimundo uses the TestStand test management software to develop and perform tests on embedded solutions.*

NI LABVIEW

NI LabVIEW is a graphical programming environment used by millions of engineers and scientists to develop sophisticated measurement, test and control systems using intuitive graphical icons and wires that resemble a flowchart.

LabVIEW offers unrivalled integration with thousands of hardware devices and provides hundreds of built-in libraries for advanced analysis and data visualisation – all for creating virtual instrumentation. The LabVIEW platform is scalable across multiple targets and OSs.

http://www.ni.com/labview

NI TESTSTAND

NI TestStand is ready-to-run test management software designed to help you develop automated test and validation systems faster. You can use NI TestStand to develop, execute, and deploy test system software. In addition, you can develop test sequences that integrate code modules written in any test programming language.

Sequences also specify execution flow, reporting, database logging, and connectivity to other enterprise systems. Finally, you can deploy test systems to production with easy-to-use operator interfaces.

http://www.ni.com/teststand

number of standard reports and various formats.

TEST ROBOT

Viviana's project includes long-term testing over 24 hours.

"In other projects we have been dependent on a test operator monitoring the long-term test procedures and varying the external factors, such as temperature, voltage sources or video sources. TestStand acts as a test robot, monitoring the test so that manual surveillance and control is not necessary," she says.

FULL CONTROL

TestStand's reporting capability is particularly good, and all the information presented in the reports is fully traceable. Data can be analysed and reports printed in XML, HTML, ATML, and ASCII formats.

"With LabVIEW and TestStand I have much better control of all the test results, and have excellent tools for analysis and reporting," she concludes.

The experience and expertise of the engineers who work on this testing mean that we can offer experienced LabVIEW and test-system developers to all our customers.

Jørn E. Toppe, managing director, Data Respons Norge AS

STRATEGIC COMMITMENT

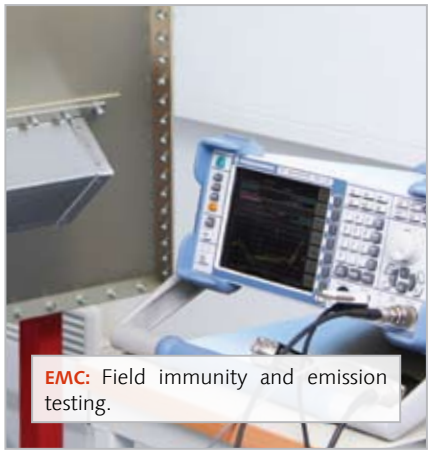
"We have made a strategic commitment to enhancing our testing expertise and introducing automated testing for products and solutions. Testing is an important part of our total value chain, and the expertise of Viviana and her colleagues at our various branch offices is key to our business concept," comments Jørn Toppe, managing director of Data Respons Norway.

"Data Respons' solution model is based on the development, production and delivery of complex embedded units to customers right across Norway. We are investing in specialised testing stations at our subcontractors and partners, as well as in testing capacity and equipment at our operations centre in Skullerud. The experience and expertise of the engineers who work on this testing mean that we can offer experienced LabVIEW and test-system developers to all our customers," remarks Toppe.

FOR MORE INFORMATION:

www.datarespons.com/884

CLIMATE: *In the event that customers' systems do not pass the test, Data Respons can provide rapid assistance in identifying and resolving the problem.*



EMC: Field immunity and emission testing.

VIBRATION: LDS V780 LPT-600 shaker with slip table for testing in three axes.

TEST AND CERTIFICATION

Data Respons has its own test centre for embedded solutions in Oslo, where we carry out advance testing prior to certification for customers in all countries. The centre has all the necessary equipment for testing against EMC, heat, humidity and vibration requirements.

Data Respons' centre for testing embedded solutions has calibrated equipment and highly expert personnel at its disposal.

"If the systems pass our tests here, it's a good indication that they will cope with the tests for final certification," says Ingvild Johannesen, OEM Solution department manager.

In the event that customers' systems do not pass the tests, Data Respons can provide rapid assistance in identifying the problems as well as access to resources to resolve them.

The test centre offers:

CLIMATE

- Vötsch VC-4060 climate chamber with temperature and humidity control
- Vötsch VCS-4100-5 temperature chamber

ELECTROMAGNETIC COMPATIBILITY

- EMC – Field immunity testing and field emission: Jyske EMC TEM Cell 222
- Conducted emission: EMCO 3810/2 LISN

VIBRATION

- LDS V780 LPT-600 shaker with slip table for testing in three axes

For more information, use the link below or call us on +47 22 74 87 17.

PRICE REQUEST AND AVAILABILITY:
www.datarespons.com/817

RUGGED I7-BASED CPCI SINGLE-BOARD COMPUTER

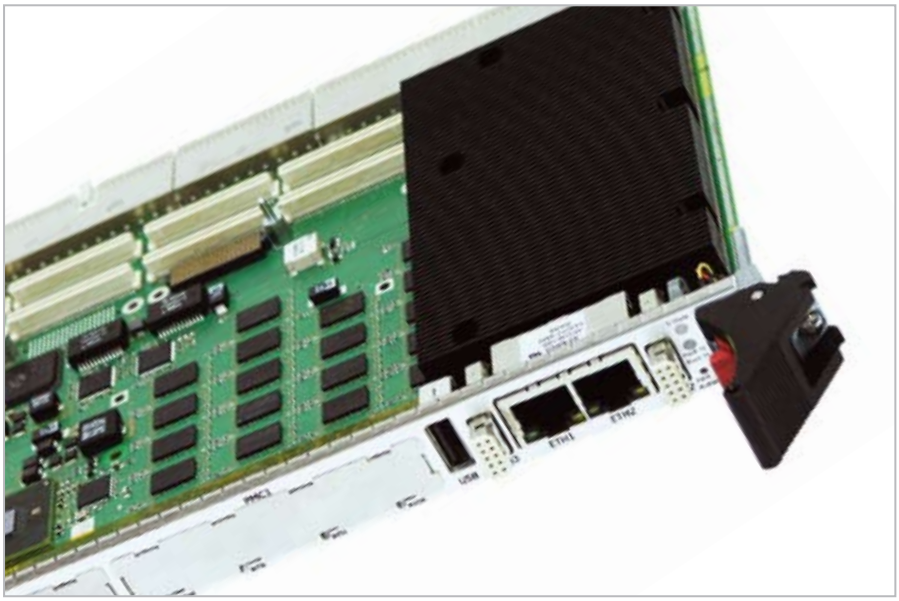
The CR12 rugged single-board computer (SBC) from GE Intelligent Platforms features the high-performance, highly integrated Core™ i7 processor platform from Intel.

Core i7 offers an integrated graphics and memory controller, plus dual-core processing up to 2.53 GHz, all in one device. Coupled with the Mobile Intel QM57 Express chipset, this provides an unmatched level of I/O bandwidth for both on-board and off-board functions.

FEATURES

- Intel Core i7 or Core i5 processors
  - Dual-core, up to 2.53 GHz
  - Integrated memory interface, 1066 MHz
- Single-slot 6U CPCI form factor
- Up to 16 GB NAND Flash (soldered)
- Up to 8 GB DDR3 SDRAM (dual-channel) with ECC in main memory (soldered components)
- Optional on-board SATA HDD
- Optional one or two PMC or XMC sites

In addition to a comprehensive range of on-board I/O features, the CR12 also offers two on-board mezzanine expansion sites for enhanced system flexibility, both of which offer PMC and XMC capability. Memory resources include up to 8 GB DDR3 SDRAM, 16 GB NAND Flash, optional SATA hard drive, BIOS Flash and BIOS backup Flash. The CR12 is designed to meet the requirements of a wide range of applications, from industrial through to fully rugged defence and aerospace programmes. It offers extended temperature capability and a range of air- and conduction-cooled build levels.



RUGGED: *The CR12 is designed to meet the requirements of a wide range of applications, from industrial through to fully rugged defence and aerospace programmes.*

PRICE REQUEST AND DATA SHEET:
www.datarespons.com/885

VERSATILE ATOM N450 BASED COMX MODULE

The COMX-ATOM-420 from Emerson Network Power is a 95 mm x 125 mm Type 2 COM Express module based on the Intel Atom processor N450 for low power consumption and improved performance.

It is designed for use in a variety of applications, such as industrial control, kiosks, clinical display systems, panel PCs, diagnostic and test equipment and other applications that require easy-to-use embedded PC functionality.

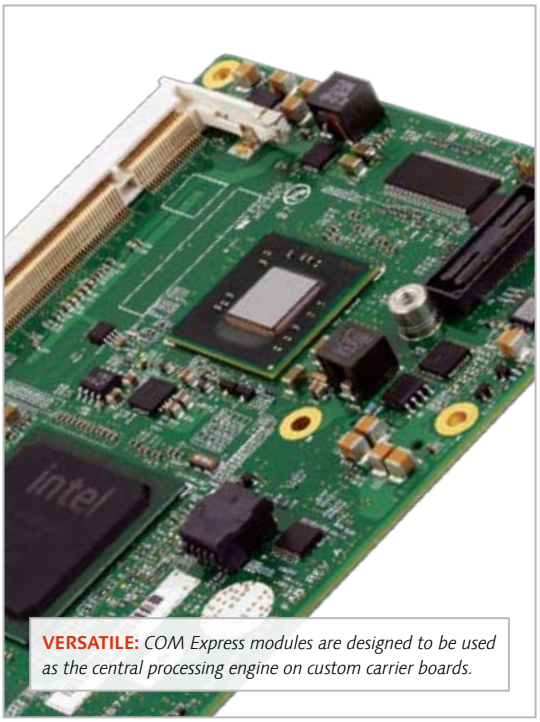
COM Express modules are designed to be used as the central processing engine on custom carrier boards, which makes them highly versatile. The COMX-ATOM-420 is based on the most common format COM Express module – Type 2. This makes it suitable for both existing applications that are looking to use a new processing module from a trusted vendor as well as new applications that need to incorporate off-the-shelf PC controller functionality onto custom I/O baseboards. The latest-generation Unified Extensible Firmware Interface (UEFI) BIOS from AMI manages the interaction between the low-level hardware and OS-level interfaces in a clean and efficient way for superior reliability.

The COMX-ATOM-420 has a wide range of built-in devices to connect to standard PC interfaces. This includes either LCD or CRT displays, both SATA and legacy PATA disks, PCI Express and PCI peripherals, USB devices and gigabit Ethernet networks. Some of the target applications are in locations not well suited to physical disk support, so in addition to Solid State SATA disk support, it also has the capability to use and boot from an optional USB flash disk.

FEATURES

- Intel Atom processor N450 at 1.66 GHz
- Up to 2 GB DDR2 memory, optional eUSB flash
- Gigabit Ethernet, SATA and PCI Express
- LVDS graphics for flat-panel displays
- 8 x USB 2.0 interfaces

PRICE REQUEST AND DATA SHEET:
www.datarespons.com/886



VERSATILE: *COM Express modules are designed to be used as the central processing engine on custom carrier boards.*

NEW I7/I5-BASED FANLESS PCS

NEXCOM is extending its fanless product family with the launch of the NISE 3500 and NISE 3500M fanless PCs, two new platforms based on the high-performance Mobile Intel QM57 (platform controller hub) and Intel 32 nm dual-core Core i7/i5 socket processors.

The NISE 3500 fanless PC series is designed for applications with high-performance graphics-processing requirements, including medical diagnostic equipment, medical imaging, data storage, industrial automation, public infotainment, and surveillance security applications.

NISE 3500 FEATURES

- On-board Intel Core i7 (2.66 GHz, 4 MB cache) and i5 (2.4 GHz, 3 MB cache) processor
- Mobile Intel QM57 platform controller hub
- Dual Intel gigabit Ethernet ports
- Up to 4 GB DDR3 800/1066 MHz SDRAM
- Dual display via VGA and DVI-D interfaces
- 6 x USB, 8 x GPIO, and 2 x eSATA
- Digital I/O: 4 x digital input, 4 x digital output
- 2.5" HDD driver bay, optional external CF socket module
- Compact enclosure: 195 mm x 268 mm x 80 mm (W x D x H)
- One PCI and one PCIe x1
- 3 x RS-232 and 1 x RS-232/422/485 with Auto Flow Control
- On-board DC to DC power design to support 9 V to 30 V DC power input
- Supports ATX power mode and PXE/WOL

PRICE REQUEST AND DATA SHEET:
www.datarespons.com/887

TRUE HIGH-END GRAPHICS

congatec's conga-CS45 features the Intel GS45 small form factor chipset, which enables significant performance increases despite a smaller footprint and lower power consumption.

The module is particularly suitable for mobile applications requiring high graphics performance, such as portable ultrasound devices. The module offers true high-end graphics performance, and even hardware-implemented decompression for HDTV videos is integrated in the chipset.

PRICE REQUEST AND DATA SHEET:
www.datarespons.com/888

NEW RAILWAY-CERTIFIED PANEL PC

Winmate has launched new products in the 15" G-WIN Rugged series that meet the requirements of the Railway EN50155 standards.

The EN50155 regulation is the European standard for railway applications for electronic devices used on rolling stock. It provides for an extended operating-temperature range of -25 to +60 °C and resistance to humidity, shocks, vibrations and radiation in vehicle installations.

The robust 15" G-WIN Panel PC combines a rugged but lightweight aluminium–magnesium alloy metal housing with anti-corrosion treatments, allowing it to withstand rain and dust and sealing and protecting the electronics to IP65 standards.

To fulfil the EN50155 standard, it also has a built-in isolated power board with wide-range power input from 9 to 36 V DC, which protects against electronic noise or spikes of up to 1.5 kV. The products have an auto-dimming function that allows the PPC/LCD to dim its brightness automatically according to the ambient light, such as at night or when driving through tunnels.

PRICE REQUEST AND DATA SHEET:
www.datarespons.com/889

FLEXIBLE SYSTEM FOR MULTIMEDIA

AAEON has launched a brand-new product line – the Flexible Embedded System (FES).

The FES series is a cost-effective and fanless solution that targets multimedia applications. The FES-6110 and FES-5120 offer high performance with low power consumption, making the series ideal for factory automation, multimedia, transportation and marine applications, to name just a few. It is a cost-effective system for versatile applications in the embedded market.

The first two models to be launched in the FES series are the FES-6110 and FES-5120. The two models differ in the optional Ethernet interfaces provided and the number of COM ports. Both of the two models support on-board Intel Atom N270 1.6 GHz processors and are equipped with the Intel 945GSE and ICH7M chipset. In addition, both feature a 200-pin DDR II 400/533 SODIMM socket, taking up to 2 GB memory. The FES-6110 and FES-5120 offer flexible I/O and storage, such as six USB 2.0 ports, one RS-232/422/485 port, one 2.5" SATA II hard disk drive bay, and one CompactFlash slot for versatile expansion possibilities.

The FES-6110 has an optional IEEE 802.11b/g Mini-PCIe module for wireless LAN, and also supports high-quality, high-performance display with a dual-view (VGA and DVI-D) function. The FES-5120 fulfils basic requirements, providing three extra RS-232 ports and VGA single-view display only.

PRICE REQUEST AND DATA SHEET:
www.datarespons.com/890

FES SERIES: *Cost-effective and fanless solution targeting multimedia applications.*

RUGGED, LOW-POWER SYSTEMS

The highly integrated CoreModule 740 provides the next migration step for rugged low-power embedded systems and stackable platforms.

ADLINK Technology has released a new small-form-factor rugged Single-Board Computer, the Ampro by ADLINK CoreModule 740. This is a PC/104-Plus module that continues ADLINK's commitment to the PC/104 standard.

The CoreModule 740 is based on the Intel Atom processor N450, running at 1.66 GHz. The CoreModule 740 takes advantage of the Atom's two-chip solution architecture with integrated memory and graphics controllers, balancing excellent performance with very low power requirements, thus making conduction cooling easy to implement for small sealed enclosures.

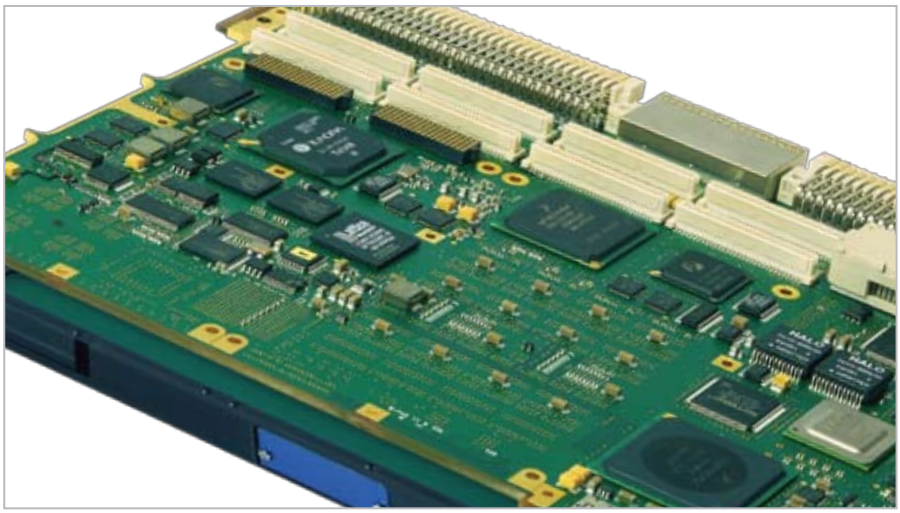
PRICE REQUEST AND DATA SHEET:
www.datarespons.com/891

TEN TIMES THE PROCESSING PERFORMANCE

GE Intelligent Platforms' PPC9B single board computer is the ideal upgrade for low-power, thermally constrained applications that require more processing capabilities.

The PowerXtreme PPC9B rugged 6U VMEbus single-Board Computer is based on Freescale's QorIQ P2020 dual-core processor and comes with 2 GB of DDR3 ECC memory. It is designed to provide a upgrade path for PowerXtreme users by maintaining the power envelope of previous family members such as the PPC4A and PPC7A while delivering around ten times the processing performance (depending on the application). The performance/watt profile of the PPC9B will be equally attractive to new customers, to whom it can deliver an advantage in environments such as unmanned vehicle control systems.

The PPC9B's power dissipation of only 20–25 watts makes it ideal for rugged, deployed applications where minimal heat dispersion is essential, such as sensor fusion and processing, tracking and targeting, weapons guidance and electronic support subsystems.



FEATURES

- Freescale QorIQ P2020 processor up to 1.2 GHz
- Two e500 cores
- Shared 512 kB L2 Cache with ECC
- Integrated DDR3 memory controller with ECC
- Up to 2 GB soldered DDR3 SDRAM with ECC
- Up to 1 GB Flash
- 2 x 128 kB of NVRAM
- Two on-board expansion sites: one XMC/PMC and one PMC only

PRICE REQUEST AND DATA SHEET:
www.datarespons.com/892

ONE SUPPLIER - ONE BILL
... AND THE PROJECT DELIVERED ON TIME

Outsourcing to Data Respons takes the edge off your complex development projects.

With Data Respons as your development and production partner you can reduce your overall development time and costs. Let us assist you with your embedded challenges!

ONE PARTNER
You only need to deal with one partner, no matter how many subcontractors or suppliers are participating. This means that you will have fewer relationships to manage and can save both time and money by getting a dedicated team with insight into your technological demands and development needs. You will get one supplier and one bill, and your R&D engineers can focus on your core activities: innovation and applications.

SUPPORT AND LIFECYCLE MANAGEMENT
Data Respons offers drop-ship stores, a dedicated support team and guaranteed response times. We have stringent quality-control procedures to handle faults and can offer online RMA handling, including consequence analysis and corrective measures. You don't need to concern yourself with end-of-life issues, because we will warn you when any changes will have to be made. Please contact Data Respons to discuss the outsourcing of your development projects.

data respons EMBEDDED SOLUTIONS

datarespons.com/outsourcing

OUTSOURCING

Letting Data Respons handle parts of your system gives you greater assurance that the chosen technology is future-oriented, provides increased functionality, and improves your long-term profitability.

WE WILL HANDLE:
- Hardware development
- Software development
- Assembly and testing
- RMA
- End-of-life issues
- Next generations